

# Work Order ID 70852

Thursday, June 16, 2011 2:20:22 PM



Page 1

Item ID: D3954-7

Accept



Setup Start



Revision ID:

Stop



Item Name: Ratchet Lug

Start Date: 6/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

*[Signature]*

Date: 11-06-11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3954

B

100

0.00



Mill Conv

Conventional Milling Machine

Memo

mill to size

0.00

*# 11/06/23*

*6 B*

110

0.00



Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg D3954

Dwg Rev: *B*

Prog Rev: *B*

2-Deburr if necessary

0.00

*MAX NOT PULLED*

*B 11-6-21*

*(6)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 70852**

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Page 2

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Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

B 11-6-21

(6)

125

0.00



Mill Conv

Memo

0.00

Conventional Milling Machine

Open hole using 0.748" reamer and mill as per Dwg D3954

A 11/06/23

6

127

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

A 11/06/23

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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**NOTE:** Date & initial all entries

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Start Date: 6/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

*OK 11/06/24*

*6 x*

140

Hybrid safety Yellow 4.3.5.12

0.00



Powdercoat

Memo

Powder Coating

*W116324*

0.00

*Start Time: 10:50*

*Over Temp: 400°F*

*Finish Time: 11:20*

*6 x OK M 11/09/20*

150

QC14- Inspect Spray Paint

0.00



QC

*QC3* Memo

Quality Control

0.00

*6 BK 11-9-20,*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 70852**

Thursday, June 16, 2011 2:20:22 PM



Page 4

Item ID: D3954-7

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Item Name: Ratchet Lug

Start Date: 6/16/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

Identify as per dwg & Stock Location: 97

0.00

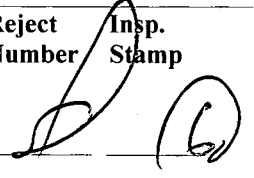


Packaging

Memo

0.00

Packaging

11/9/21 

170

QC21- Final Inspection - Work Order Release

0.00

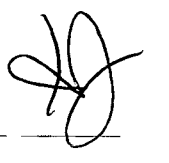


QC

Memo

0.00

Quality Control

11/9/21 

ME  
11-09-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



# Picklist Print

Thursday, June 16, 2011 2:20:29 PM

Page 1

Work Order ID: 70852

Parent Item: D3954-7

Parent Item Name: Ratchet Lug



Start Date: 6/16/2011

Required Date: 6/23/2011

Start Qty: 6.00

Required Qty: 6.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M1010B1.000X02.000 Purchased No



1010-1025 Steel Bar 1.00 x 2.00



3.157895

B1-6-21

6

### Location

### Loc Qty

### Loc Code

MAT035

14.1

114431

2.1

117835

12

110368

110368

M1010B1.000X02.000

1" x 12" PLATE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



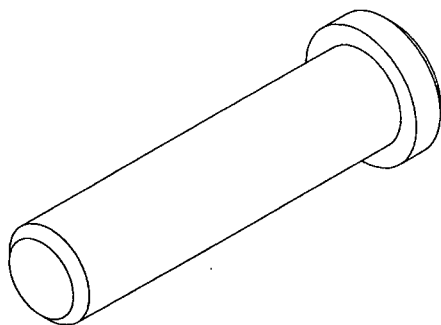
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

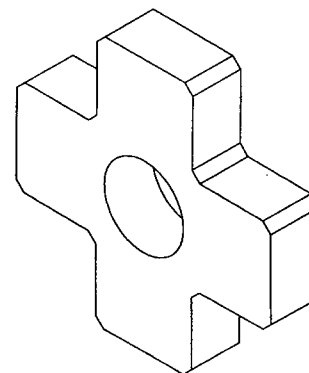
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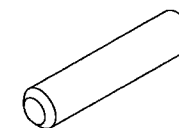
**NOTE:** Date & initial all entries



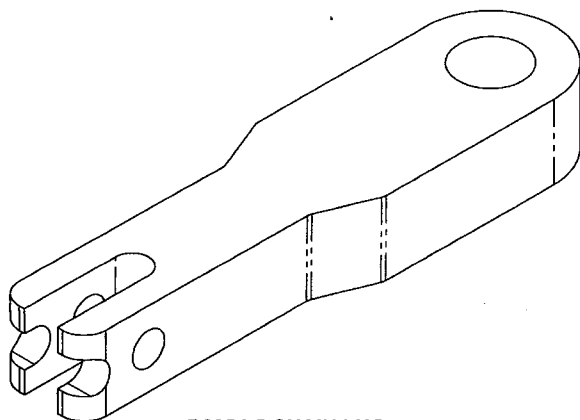
**D3954-1 GWT PIN**



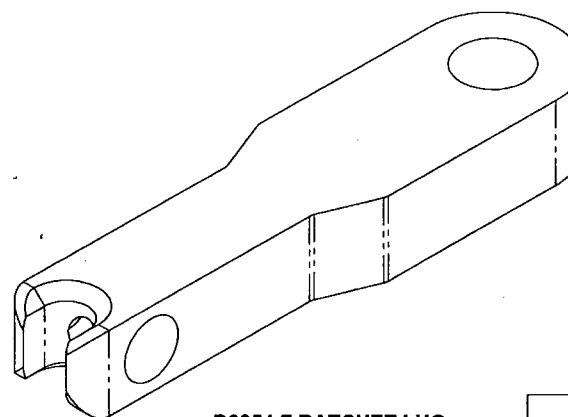
**D3954-3 GWT KNOB**



**D3954-9 GWT CHAIN PIN**






**D3954-5 CHAIN LUG**



**D3954-7 RATCHET LUG**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 70852  
*RM-06-16*

**RELEASED**  
2009-10-19  
*MP*

B	MATERIAL UPDATE FOR ALL COMPONENTS WAS STAINLESS STEEL IS CARBON STEEL FOR ALL COMPONENTS. FINISH FOR ALL COMPONENTS WAS RED POWDER COAT IS YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D3954	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

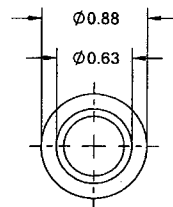
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

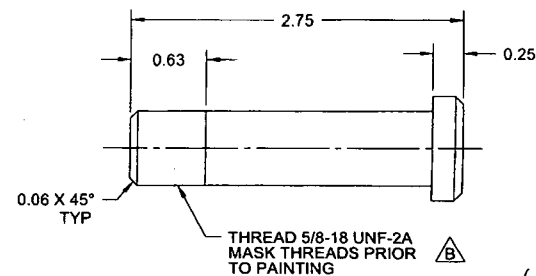
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

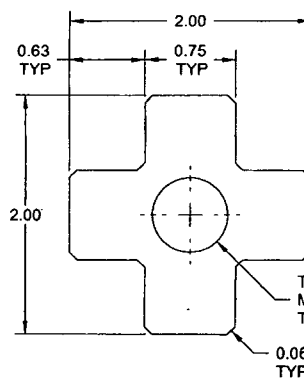
**NOTE:** Date & initial all entries



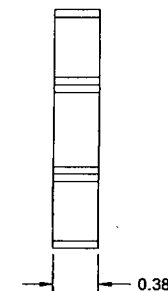
**D3954-1 GWT PIN**



*u/b 70850*



**D3954-3 GWT KNOB**



**NOTES:**

1) MATERIAL -1: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

-3: AISI 1010-1025 MILD STEEL SHEET  
PER DART SPEC MS1010-S

OR: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

**ALTERNATE MATERIAL:**


-1: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

-3: AISI 303/304 STAINLESS STEEL SHEET  
REF DART SPEC M303/304S

OR: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG103IB PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -1: 0.26 lbs  
-3: 0.23 lbs

**RELEASED**  
2009-10-19

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	
DATE	09.10.15	NTS	
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W/O:		WORK ORDER CHANGES					
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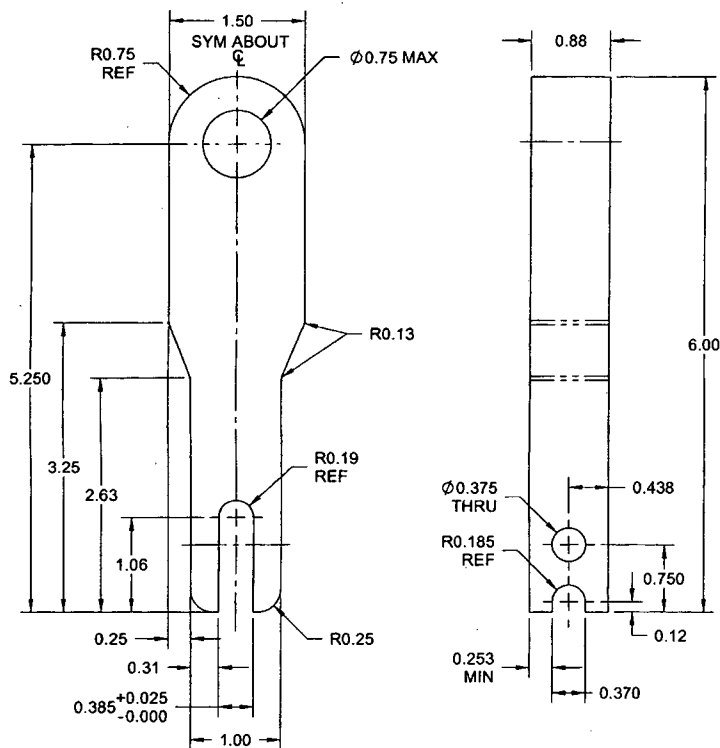
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





**D3954-5 CHAIN LUG**

**NOTES:**

1) MATERIAL: -5/-7: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

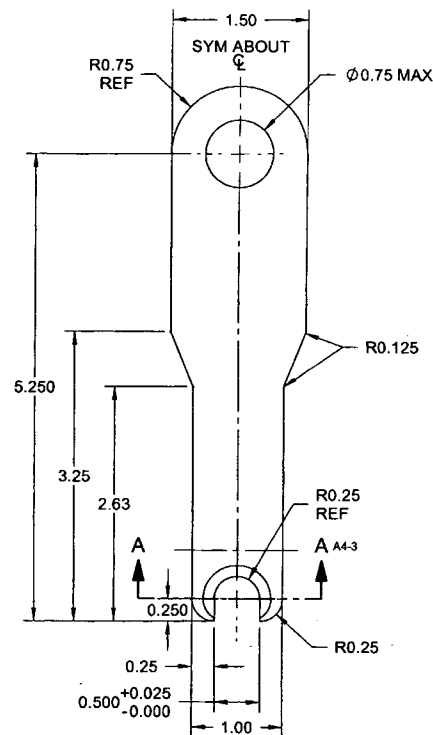
9: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

**ALTERNATE MATERIAL:**

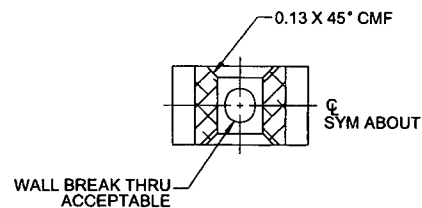
-5/-7: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

-9: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

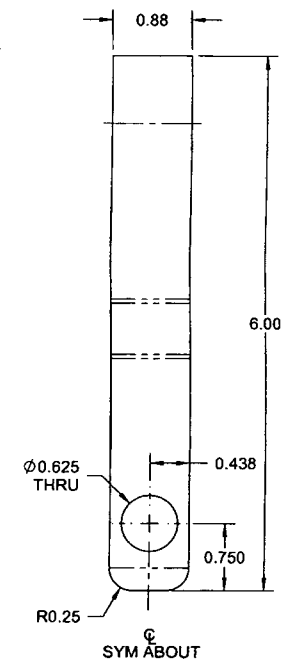
- 2) FINISH -7 ONLY: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -5/-7: 1.56 lbs EACH  
-9: 0.05 lbs



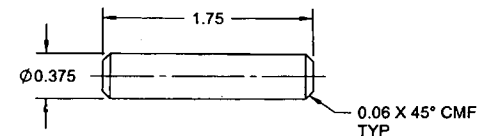
**D3954-7 RATCHET LUG**




**SECTION A-A** c3-3



**D3954-9 GWT CHAIN PIN**



DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

*u/o 10852*

**RELEASED**  
2009-10-19

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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